

Technology: [Controlling coughing and swallowing](#)

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Inventor: Sean McCoy

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Abstract

To protect an airway of a patient, it is important for the patient to be able to swallow and cough effectively. To promote an effective cough or swallow, electrodes are positioned upon skin of the neck of the patient, the electrodes configured for both capturing electromyographic (EMG) information, and for transmitting a stimulating electrical signal to the body. A microphone is positioned upon or near the neck to capture audio information emanating from the body of the patient. Software analyzes the EMG and audio information to identify an attempted or needed cough or swallow, and causes the electrodes to apply an electrical stimulus to the neck of the patient to produce a more efficacious cough or swallow. An additional microphone can be positioned to capture ambient noise, so that such noise can be reduced in the audio information of the first microphone.